RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/528,989_
Source: _PCT_
Date Processed by STIC: _7/3/06_

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PCT

RAW SEQUENCE LISTING   DATE: 07/03/2006
PATENT APPLICATION: US/10/528,989   TIME: 12:25:53

Input Set : A:\2005-10-19 0933-0238P.ST25.txt
Output Set: N:\CRF4\07032006\J528989.raw

```
 3 <110> APPLICANT: VALTANEN, Heli et. al.
 5 <120> TITLE OF INVENTION: METHOD FOR DESIGNING PEPTIDES
 7 <130> FILE REFERENCE: 0933-0238PUS1
 9 <140> CURRENT APPLICATION NUMBER: US 10/528,989
10 <141> CURRENT FILING DATE: 2005-03-24
12 <150> PRIOR APPLICATION NUMBER: PCT/FI2003/000705
13 <151> PRIOR FILING DATE: 2003-09-29
15 <160> NUMBER OF SEQ ID NOS: 27
17 <170> SOFTWARE: PatentIn version 3.3
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 30
21 <212> TYPE: DNA
22 <213> ORGANISM: Artificial Sequence
24 <220> FEATURE:
25 <223> OTHER INFORMATION: Synthetic intein Fwd SapI primer
27 <400> SEQUENCE: 1
28 cctttctgct cttccaacgc cgacggggct                          30
31 <210> SEQ ID NO: 2
32 <211> LENGTH: 30
33 <212> TYPE: DNA
34 <213> ORGANISM: Artificial Sequence
36 <220> FEATURE:
37 <223> OTHER INFORMATION: Synthetic intein Rev PstI primer
39 <400> SEQUENCE: 2
40 actttcaacc tgcagttacc cagcggcccc                          30
43 <210> SEQ ID NO: 3
44 <211> LENGTH: 59
45 <212> TYPE: DNA
46 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
49 <223> OTHER INFORMATION: Synthetic oligonucleotide encoding SEQ ID NO: 10
51 <400> SEQUENCE: 3
52 ggtggtgctc ttccaactgt acgacccatt ggggatttac tttatgttaa ctgcaggcg 59
55 <210> SEQ ID NO: 4
56 <211> LENGTH: 15
57 <212> TYPE: DNA
58 <213> ORGANISM: Artificial Sequence
60 <220> FEATURE:
61 <223> OTHER INFORMATION: Synthetic primer used to convert SEQ ID NO: 3 to double-
stranded form
63 <400> SEQUENCE: 4
64 cgcctgcagt taaca                                          15
67 <210> SEQ ID NO: 5
68 <211> LENGTH: 75
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Output Set: **N:\CRF4\07032006\J528989.raw**

```
69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: Synthetic degenerate oligonucleotide used in the cloning of
the intein-
74      peptide fusions
76 <400> SEQUENCE: 5
77 ggtggttgct cttccaacgg ccgccvavva vtatvavggc tgtaccaccc atttacttta 60
78 tgttaactgc aggcg                                                   75
81 <210> SEQ ID NO: 6
82 <211> LENGTH: 17
83 <212> TYPE: DNA
84 <213> ORGANISM: Artificial Sequence
86 <220> FEATURE:
87 <223> OTHER INFORMATION: Transposon specific primer
89 <400> SEQUENCE: 6
90 atcagcggcc gcgatcc                                                 17
93 <210> SEQ ID NO: 7
94 <211> LENGTH: 21
95 <212> TYPE: DNA
96 <213> ORGANISM: Artificial Sequence
98 <220> FEATURE:
99 <223> OTHER INFORMATION: Transposon specific primer
101 <400> SEQUENCE: 7
102 ttattcggtc gaaaaggatc c                                           21
105 <210> SEQ ID NO: 8
106 <211> LENGTH: 4
107 <212> TYPE: PRT
108 <213> ORGANISM: Unknown
110 <220> FEATURE:
111 <223> OTHER INFORMATION: Peptide derived from phage
113 <400> SEQUENCE: 8
114 Ala Asp Gly Ala
115   1
118 <210> SEQ ID NO: 9
119 <211> LENGTH: 4
120 <212> TYPE: PRT
121 <213> ORGANISM: Unknown
123 <220> FEATURE:
124 <223> OTHER INFORMATION: Peptide derived from phage
126 <400> SEQUENCE: 9
127 Gly Ala Ala Gly
128   1
131 <210> SEQ ID NO: 10
132 <211> LENGTH: 10
133 <212> TYPE: PRT
134 <213> ORGANISM: Unknown
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Recombinant peptide prepared by the intein system
139 <400> SEQUENCE: 10
```

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140 Cys Thr Thr His Trp Gly Phe Thr Leu Cys
141  1              5                   10
144 <210> SEQ ID NO: 11
145 <211> LENGTH: 10
146 <212> TYPE: PRT
147 <213> ORGANISM: Unknown
149 <220> FEATURE:
150 <223> OTHER INFORMATION: Non-cyclic synthetic control peptide
152 <400> SEQUENCE: 11
153 Ser Thr Thr His Trp Gly Phe Thr Leu Ser
154  1              5                   10
157 <210> SEQ ID NO: 12
158 <211> LENGTH: 10
159 <212> TYPE: PRT
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
165 <400> SEQUENCE: 12
166 Cys Ala Thr His Trp Gly Phe Thr Leu Cys
167  1              5                   10
170 <210> SEQ ID NO: 13
171 <211> LENGTH: 10
172 <212> TYPE: PRT
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
178 <400> SEQUENCE: 13
179 Cys Thr Ala His Trp Gly Phe Thr Leu Cys
180  1              5                   10
183 <210> SEQ ID NO: 14
184 <211> LENGTH: 10
185 <212> TYPE: PRT
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
191 <400> SEQUENCE: 14
192 Cys Thr Thr Ala Trp Gly Phe Thr Leu Cys
193  1              5                   10
196 <210> SEQ ID NO: 15
197 <211> LENGTH: 10
198 <212> TYPE: PRT
199 <213> ORGANISM: Artificial Sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
204 <400> SEQUENCE: 15
205 Cys Thr Thr His Ala Gly Phe Thr Leu Cys
206  1              5                   10
209 <210> SEQ ID NO: 16
210 <211> LENGTH: 10
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```
    211 <212> TYPE: PRT
    212 <213> ORGANISM: Artificial Sequence
    214 <220> FEATURE:
    215 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
    217 <400> SEQUENCE: 16
    218 Cys Thr Thr His Trp Ala Phe Thr Leu Cys
    219   1               5                 10
    222 <210> SEQ ID NO: 17
    223 <211> LENGTH: 10
    224 <212> TYPE: PRT
    225 <213> ORGANISM: Artificial Sequence
    228 <220> FEATURE:
    229 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
    231 <400> SEQUENCE: 17
    232 Cys Thr Thr His Trp Gly Ala Thr Leu Cys
    233   1               5                 10
    236 <210> SEQ ID NO: 18
    237 <211> LENGTH: 9
    238 <212> TYPE: PRT
    239 <213> ORGANISM: Artificial Sequence
    241 <220> FEATURE:
    242 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
    244 <400> SEQUENCE: 18
    245 Cys Thr Thr His Trp Gly Phe Ala Leu
    246   1               5
    249 <210> SEQ ID NO: 19
    250 <211> LENGTH: 10
    251 <212> TYPE: PRT
    252 <213> ORGANISM: Artificial Sequence
    254 <220> FEATURE:
    255 <223> OTHER INFORMATION: Description of Artificial Sequence: Ala-substitution of the
CTT-peptide
    257 <400> SEQUENCE: 19
    258 Cys Thr Thr His Trp Gly Phe Ala Leu Cys
    259   1               5                 10
    262 <210> SEQ ID NO: 20
    263 <211> LENGTH: 10
    264 <212> TYPE: PRT
    265 <213> ORGANISM: Artificial Sequence
    267 <220> FEATURE:
    268 <223> OTHER INFORMATION: Description of Artificial Sequence:
    269        CTT-peptide with a tryptophan analogue at position 5
    271 <220> FEATURE:
    272 <221> NAME/KEY: misc_feature
    273 <222> LOCATION: (5)..(5)
    274 <223> OTHER INFORMATION: Xaa at position 5 is 5-OH-Trp, 5-F-Trp or 6-F-Trp
    276 <400> SEQUENCE: 20
W--> 277 Cys Thr Thr His Xaa Gly Phe Thr Leu Cys
    278   1               5                 10
    281 <210> SEQ ID NO: 21
```

```
282 <211> LENGTH: 10
283 <212> TYPE: PRT
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: Description of Artificial Sequence: Control sequence
289 <400> SEQUENCE: 21
290 Cys Glu Arg Gly Gly Leu Glu Thr Ser Cys
291   1               5                  10
294 <210> SEQ ID NO: 22
295 <211> LENGTH: 9
296 <212> TYPE: PRT
297 <213> ORGANISM: Artificial Sequence
299 <220> FEATURE:
300 <223> OTHER INFORMATION: Description of Artificial Sequence: Control sequence
302 <400> SEQUENCE: 22
303 Cys Pro Cys Phe Leu Leu Gly Cys Cys
304   1               5
307 <210> SEQ ID NO: 23
308 <211> LENGTH: 17
309 <212> TYPE: PRT
310 <213> ORGANISM: Artificial Sequence
312 <220> FEATURE:
313 <223> OTHER INFORMATION: Description of Artificial Sequence:
314       CTT-peptide with additional hydrophilic amino acids
316 <220> FEATURE:
317 <221> NAME/KEY: misc_feature
318 <222> LOCATION: (3)..(4)
319 <223> OTHER INFORMATION: Xaa at positions 3 and 4 is any hydrophilic amino acid
321 <220> FEATURE:
322 <221> NAME/KEY: misc_feature
323 <222> LOCATION: (6)..(6)
324 <223> OTHER INFORMATION: Xaa at position 6 is any hydrophilic amino acid
327 <400> SEQUENCE: 23
W--> 328 Gly Arg Xaa Xaa Tyr Xaa Gly Cys Thr Thr His Trp Gly Phe Thr Leu
329   1               5                  10                  15
331 Cys
335 <210> SEQ ID NO: 24
336 <211> LENGTH: 17
337 <212> TYPE: PRT
338 <213> ORGANISM: Artificial Sequence
340 <220> FEATURE:
341 <223> OTHER INFORMATION: Description of Artificial Sequence:
342       CTT-peptide with additional hydrophilic amino acids
344 <400> SEQUENCE: 24
345 Gly Arg Glu Asn Tyr His Gly Cys Thr Thr His Trp Gly Phe Thr Leu
346   1               5                  10                  15
348 Cys
351 <210> SEQ ID NO: 25
352 <211> LENGTH: 9
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 07/03/2006
PATENT APPLICATION: US/10/528,989   TIME: 12:25:54

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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:20; Xaa Pos. 5
Seq#:23; Xaa Pos. 3,4,6
Seq#:25; Xaa Pos. 5
Seq#:26; Xaa Pos. 1,5,6

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:25; Line(s) 362

VERIFICATION SUMMARY   DATE: 07/03/2006
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```
L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
```